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8 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
9 REGION 9

10 In the matter of:)

11 Indian Bend Wash Site, South)
12 Study Area, VOCs in Groundwater)
13 Operable Unit)

U.S.EPA

Docket No. **2000 - 19**

14 IMC Magnetix Corp.)

15 RESPONDENT.)

16 Proceeding Under Sections 104, 106,)
17 and 122 of the Comprehensive)
18 Environmental Response, Compensation)
19 and Liability Act of 1980)
(42 U.S.C. §§ 9604, 9606, and 9622),)
as amended by the Superfund)
Amendments and Reauthorization)
Act of 1986.)

20 ADMINISTRATIVE CONSENT ORDER

21 FOR REMEDIAL DESIGN

22 INDIAN BEND WASH SITE, SOUTH STUDY AREA

23 VOCs IN GROUNDWATER OPERABLE UNIT

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1 I. AUTHORITY

2 A. This Administrative Order on Consent ("Consent Order")
3 is entered into pursuant to the authority vested in the President
4 of the United States by Sections 104, 106 and 122 of the
5 Comprehensive Environmental Response, Compensation, and Liability
6 Act of 1980 (as amended by the Superfund Amendments and
7 Reauthorization Act of 1986) ("CERCLA"), 42 U.S.C. §§ 104, 106,
8 and 122. The President delegated this authority to the
9 Administrator of the United States Environmental Protection
10 Agency ("EPA" or "Agency") by Executive Order 12580, 52 Fed. Reg.
11 2923, and the authority was further delegated to the Assistant
12 Administrator for Solid Waste and Emergency Response and the
13 Regional Administrators by EPA Delegation Nos. 14-8-A and
14 14-14-C. This authority has been redelegated to the Branch
15 Chief, Site Cleanup Branch, Superfund Division, EPA, Region 9.

16 B. The Respondent agrees to undertake all actions
17 required by the terms and conditions of this Consent Order and
18 attachments to it. In any action by EPA to enforce the terms of
19 this Consent Order, Respondent consents to and agrees not to
20 contest the authority or jurisdiction of EPA to enter into and
21 enforce this Consent Order.

22 II. STATEMENT OF PURPOSE

23 A. In entering into this Consent Order, the mutual
24 objectives of EPA and Respondent are:

25 1. To conduct the Work, as set forth herein,
26 including the Work described in Subsection B of Paragraph VIII,
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1 below, necessary for implementing, for all areas but the western
2 area of groundwater contamination at the Indian Bend Wash Site,
3 South Study Area ("the Site"), the groundwater remedy selected in
4 the Record of Decision for the VOCs in Groundwater Operable Unit
5 dated September 30, 1998 ("ROD"), including the Work described in
6 the Remedial Design Statement of Work ("SOW"), a copy of which is
7 attached as Attachment A and by this reference made a part of
8 this Consent Order. The Groundwater Operable Unit ROD for the
9 Site is attached as Attachment B and is incorporated herein by
10 this reference. The Work will include researching, analyzing,
11 and specifying the remedial design activities necessary for
12 implementation of the selected remedy as documented in the
13 Groundwater ROD for the Indian Bend Wash Site, South Area, and
14 developing the engineering plans, drawings and technical
15 specifications on which implementation of the selected remedy
16 shall be based. The Work also will include the placement,
17 installation, and monitoring by Respondent of groundwater
18 monitoring wells in the central contaminant area of the Site to
19 determine if the well field is appropriately designed and for
20 other purposes, as set forth in the SOW or as otherwise
21 necessary. The Work also will include the repair and monitoring
22 of wells in all areas but the western contaminant area, and other
23 work set forth in this Consent Order and the SOW. The SOW
24 specifies the work to be performed during the Remedial Design,
25 including a list of reports, documents, plans and specifications
26 and other deliverables for designing a remedy that Respondent

1 will provide to EPA for review, comment and/or approval,
2 disapproval or modification as described in Section VIII.

3 2. To accomplish all actions required by the terms
4 and conditions of this Consent Order in accordance with the
5 provisions of CERCLA and the National Contingency Plan ("NCP"),
6 40 C.F.R. Part 300 et seq., as amended.

7 3. To accomplish the above purposes promptly, cost-
8 effectively, and without litigation.

9 4. Nothing in this Consent Order should be construed
10 as an admission of liability.

11 III. FINDINGS OF FACT

12 The following is a summary of the background of the Site as
13 alleged by the United States, which for the purposes of this
14 Consent Order, the Respondent neither admits nor denies:

15 A. The Indian Bend Wash Superfund Site was listed on the
16 National Priorities List, pursuant to section 105 of CERCLA, 42
17 U.S.C. section 9605, in September 1983. Subsequently, the Indian
18 Bend Wash Site was divided for administrative reasons into two
19 study areas, the North and South study areas, which are generally
20 divided at the Salt River. The Indian Bend Wash Superfund Site's
21 South Area ("the Site") is approximately three square miles
22 located in and near the City of Tempe, in Maricopa County,
23 Arizona. The Site is bounded by Apache Boulevard on the south,
24 Rural/Scottsdale Road on the west, Price Road on the east, and is
25 proximate to Curry Road on the north, and includes the ephemeral
26 Salt River and groundwater that may have migrated beyond these

1 boundaries. Land at the Site is developed for residential,
2 commercial, and industrial uses. Groundwater at the Site was
3 used as a drinking water source until contamination was
4 discovered in two wells owned by the City of Tempe. These wells
5 have not been used to serve water since 1989.

6 B. Releases of volatile organic compounds ("VOCs"), common
7 industrial solvents such as trichloroethylene ("TCE"),
8 perchloroethylene ("PCE") and 1,1,1-trichloroethane ("1,1,1-
9 TCA"), from several individual facilities have contaminated the
10 soils above the groundwater table ("vadose zone") and the
11 groundwater at IBW-South. Focused Remedial Investigations have
12 been conducted for various facilities at the Site, finding
13 significant soil gas levels of VOCs at several areas of the Site.
14 The groundwater Remedial Investigation indicates that a number of
15 these areas have contributed to groundwater contamination with
16 TCE and PCE.

17 C. On September 27, 1993, EPA signed a "Plug In" VOCs in
18 Vadose Zone Operable Unit Record of Decision ("1993 Plug In
19 ROD"), which selected Soil Vapor Extraction as a standard
20 remedial technology and defined a process to use for determining
21 where the remedial action would be applied to address VOCs in the
22 vadose zone at the Indian Bend Wash Superfund Site, South Area.

23 D. On September 30, 1998, EPA signed a Record of Decision
24 for the VOCs in Groundwater Operable Unit for the Site ("the
25 ROD"). The Groundwater ROD selected monitored natural
26 attenuation as the remedy for the central and eastern groundwater.

contaminant areas at the Site, and established a contingency remedy consisting of extraction and treatment of portions of the groundwater contamination in these areas of the Site if criteria specified in the Groundwater ROD are met. The ROD also selected extraction and treatment of groundwater as the remedy for the western area of groundwater contamination at the Site.

E. Based on the Remedial Investigation ("RI") for groundwater, dated July 1997, hazardous substances have been identified at the Site that may pose a threat to human health or the environment if they are not addressed by implementing the response action set forth in the Groundwater ROD. Data from soil, soil gas, and groundwater sampling are presented in the RI and in numerous other reports, and are included in the administrative records for the 1993 Plug In ROD and the 1998 Groundwater ROD.

F. On or about December 11, 1997, EPA sent a general notice letter to Respondent and other parties. These letters notified Respondent that EPA considered it to be potentially liable for groundwater contamination at the Site.

G. On or about March 31, 1999, EPA sent remedial design notice letters notifying the Respondent that it should commence negotiations with EPA for the performance of the remedial design Work for the Site. Pursuant to those negotiations, undertaken at arm's length, in good faith, and without any admissions of fact or liability, EPA and Respondent have agreed to this Consent Order.

1 H. VOCs and other hazardous substances have been detected
2 at the Site, including in the soils at, and the groundwater at or
3 downgradient of, several facilities, including the facility of
4 IMC Magnetix Corp., located at 1900 East 5th Street, Tempe,
5 Arizona, in the central area of the Site. IMC has operated a
6 factory producing solenoids, solenoid valves, hydraulic valves,
7 actuators, and atomizers, solenoid motors and primary electrical
8 components for the aerospace industry since 1965 at this
9 facility, and used solvents including TCE. TCE as high as 200
10 ug/l, TCA as high as 470 ug/l, and PCE as high as 50 ug/l, have
11 been found in soil gas at the property. Monitoring of
12 downgradient groundwater wells has revealed levels of TCE at or
13 above the Maximum Contaminant Level ("MCL") of 5 parts per
14 billion.

15 I. Respondent IMC Magnetix Corp. is the current owner and
16 operator of, and was the former owner and operator at the time of
17 disposal of hazardous substances at, its facility located at 1900
18 East 5th Street, Tempe, Arizona, within the IBW-South Site, and
19 identified in subsection H of Section III. IMC used and disposed
20 of TCE in its operations. IMC Magnetix was incorporated in
21 Arizona on February 13, 1959.

22 J. The Remedial Design Work or Work required of Respondent
23 under this Consent Order comprises a portion of the remedial
24 design work required by the Groundwater ROD. This Consent Order
25 does not require Respondent to perform work in the Western
26 Contaminant Area, and does not require Respondent to conduct the
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1 Excluded Work described in Paragraph VIII.B.

2 IV. CONCLUSIONS OF LAW

3 EPA has concluded that:

4 A. The Site, and Respondent's location in the Indian Bend
5 Wash Site, South Area, as identified in Subsections H. and I. of
6 Section III., are "facilities" as defined in Section 101(9) of
7 CERCLA, 42 U.S.C. § 9601(9).

8 B. Respondent is a "person" as defined in Section 101(21)
9 of CERCLA, 42 U.S.C. § 9601(21).

10 C. Trichloroethylene (TCE), perchloroethylene (PCE), and
11 1,1,1-trichloroethane (1,1,1-TCA), are "hazardous substances" as
12 defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

13 D. There have been actual or threatened "releases", as
14 defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22), of
15 hazardous substances at the Site, and particularly at or
16 emanating from Respondent's facility, identified in Subsections
17 H. and I. of Section III. The potential for future migration of
18 hazardous substances from this facility and the Site poses a
19 further threat of "release," as defined in Section 101(22) of
20 CERCLA, 42 U.S.C. § 9601(22).

21 E. Respondent is a responsible party pursuant to Section
22 107(a) of CERCLA, 42 U.S.C. § 9607(a), as a current owner and
23 operator, and an owner and operator at the time of disposal of
24 hazardous substances, at a facility at the Site.

25 V. DETERMINATIONS

26 A. EPA has determined that:

1. The actual or threatened releases of hazardous substances from the Indian Bend Wash Site, South Area, including from Respondent's facility, presents or may present an imminent and substantial endangerment to the public health or welfare or the environment.

2. The actions required by this Consent Order are necessary to protect the public health, welfare and the environment.

3. The activities contemplated by this Consent Order are consistent with the NCP.

B. Respondent does not admit or deny EPA's Conclusions of Law or Determinations. Respondent, however, agrees not to contest these Determinations in any action or proceeding brought by EPA to enforce this Consent Order.

C. Except as otherwise explicitly provided in this Order, issuance of and entry into this Consent Order, and taking actions under this Order, shall not constitute (a) an admission, adjudication, or waiver of any right or defense of Respondent with respect to any present or future alleged liability for conditions at or near the Site except as to enforcement of the terms of this Consent Order; or (b) admission or adjudication of any Finding of Fact, Conclusion of Law or Determination stated in this Consent Order; or (c) evidence of any wrongdoing or misconduct or liability to any person on the part of Respondent; or (d) an admission or adjudication that Respondent is liable for areas of contamination at the Site; or (e) a waiver of

Respondent's position that the contaminant areas are divisible.

VI. NOTICE TO STATE

A. By providing a copy of this Consent Order to the State, EPA is notifying the State of Arizona that this Consent Order is being entered into and that EPA is the lead agency for coordinating, overseeing, and enforcing the response action required by this Consent Order.

VII. DEFINITIONS

A. Unless otherwise expressly provided herein, terms used in this Consent Order which are defined in CERCLA or in regulations promulgated under CERCLA, shall have the meaning assigned to them in the statute or its implementing regulations. Whenever terms listed below are used in this Consent Order or in the documents attached to this Consent Order or incorporated by reference into this Consent Order, the following definitions shall apply:

1. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, et seq.

2. "Day" shall mean a calendar day, unless expressly stated to be a Working Day; provided, however, that in computing any period of time under this Consent Order, where the last day would fall on a Saturday, Sunday, or federal or State holiday, the period shall run until the close of business of the next Working Day.

3. "EPA" shall mean the United States Environmental

1 Protection Agency and any successor departments or agencies of
2 the United States.

3 4. "Response Costs" shall mean all costs, including,
4 but not limited to, direct and indirect costs, that the United
5 States incurs for any activities relating to the remedial design
6 or this Consent Order, including all costs incurred in reviewing
7 or developing plans, reports, other items and deliverables, and
8 field work under this Consent Order; in assessing, overseeing, or
9 verifying the Work, or otherwise implementing, overseeing, or
10 enforcing this Consent Order, or otherwise implementing any
11 portion of the Remedial Design for the central or eastern
12 contaminant areas; in conducting public involvement activities;
13 in conducting reviews of the remedial design and remedy,
14 including five-year periodic reviews; in gaining access and
15 imposing institutional controls (including the amount of just
16 compensation); such costs include, but are not limited to payroll
17 costs, contractor costs, travel costs, laboratory costs, and all
18 other costs incurred by EPA, including its attorneys, for all
19 activities in overseeing, implementing, or enforcing this Consent
20 Order or otherwise implementing any portion of the Remedial
21 Design for the central or eastern contaminant areas.

22 5. "Performance Standards" shall mean those cleanup
23 standards, standards of control, substantive requirements,
24 criteria, or limitations, and other measures of achievement of
25 the goals of the Remedial action set forth in the Groundwater ROD
26 dated September 30, 1998, and in or pursuant to the Statement of
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1 Work, that the remedial design, remedial action, and the Work
2 required by this Consent Order must attain and maintain.

3 7. "Record of Decision" or "ROD" shall mean
4 Attachment B, the Indian Bend Wash Site, South Area document
5 concerning the VOCs in Groundwater Operable Unit signed on
6 September 30, 1998, by the EPA Region 9 Director of the Superfund
7 Division, and all attachments thereto.

8 8. "Release" shall have the meaning set forth in
9 CERCLA Section 101(22), 42 U.S.C. § 9601(22).

10 9. "Remedial Design Work" or "Work" shall mean the
11 Work Respondent is required to perform by this Consent Order and
12 the attached SOW, including but not limited to the engineering
13 plans and technical specifications to be developed by Respondent
14 for approval by EPA consistent with the ROD, this Consent Order,
15 and the NCP.

16 10. "Respondent" shall mean IMC Magnetix Corp.,
17 identified in Subsections H and I. of Section III.

18 11. "Site" (when capitalized) or "IBW-South" shall
19 mean the Indian Bend Wash Superfund Site, South Study Area, as
20 described and depicted in Subsection A. of Section III. or in the
21 ROD, and includes the areal extent of contamination with TCE
22 and/or PCE and other volatile organic compounds in groundwater at
23 or emanating from any part of that area.

24 12. "State" shall mean the State of Arizona.

25 13. "Statement of Work" or "SOW" shall mean
26 Attachment A.

1 14. "United States" shall mean the United States of
2 America.

3 15. "Working Day" shall mean a Day other than a
4 Saturday, Sunday, or federal or State of Arizona holiday.

5 VIII. WORK TO BE PERFORMED

6 A. All Work performed by Respondent pursuant to this
7 Consent Order ("Work" or "Remedial Design Work") shall be under
8 the direction and supervision of a qualified professional
9 engineer or a certified geologist. Within thirty (30) days after
10 the effective date of this Consent Order, Respondent shall notify
11 EPA in writing of the name, title, and qualifications of such
12 engineer or geologist and of any contractors and/or principal
13 subcontractors to be used in carrying out the Work. The
14 qualifications of the persons undertaking the Work for Respondent
15 shall be subject to EPA's review, for verification that such
16 persons meet the minimum technical background and experience
17 criteria. If EPA disapproves, in writing, the technical
18 qualifications of any persons(s), Respondent shall notify EPA
19 within thirty (30) days of the written notice, of the identity
20 and qualifications of the replacement(s). If EPA subsequently
21 disapproves of the replacement(s), EPA reserves its right under
22 CERCLA and the NCP to conduct the Remedial Design Work, and to
23 seek reimbursement for costs from Respondent.

24 B. Respondent shall perform the tasks necessary to design
25 the remedy for the VOCs in Groundwater OU for the Site as
26 specified in this Consent Order and SOW that are necessary to
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1 meet the performance standards and other requirements set forth
2 in this Consent Order, the ROD, and the SOW, except that
3 Respondent need not perform the remedial design tasks for the
4 remedy of the western area of groundwater contamination, and need
5 not perform the following remedial design tasks to be performed
6 or approved by EPA (hereinafter the "Excluded Work"): Obtaining
7 consent for access for the installation of remedial design
8 monitoring wells in the eastern area, preparing a health and
9 safety plan for installing wells in the eastern contaminant area;
10 installing the monitoring wells in the eastern area; sealing SRP
11 well 23E,2.9N; conducting a well use survey; and preparing an
12 institutional controls workplan. Respondent shall design the
13 groundwater monitored natural attenuation remedy for the central
14 and eastern areas of the Site, except as specified. Respondent's
15 Work includes the performance of the tasks and activities, and
16 the submission of all reports and deliverables, identified in
17 Section III. of the SOW. Respondent's Work will include
18 researching, analyzing, and specifying the remedial design
19 activities necessary for implementation of the selected remedy as
20 documented in the Groundwater ROD and developing the engineering
21 plans, drawings and technical specifications on which
22 implementation of the selected remedy shall be based. The Work
23 will include the placement, installation, and monitoring of
24 monitoring wells to determine the effectiveness of the remedial
25 design and whether the well field is appropriately designed and
26 for other purposes, as set forth in the SOW, or as otherwise
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1 necessary. The Work also will include the repair and monitoring
2 of wells in all areas but the western contaminant area, and other
3 Work as set forth in this Consent Order and the SOW. If EPA
4 determines, in its sole discretion, that the contingency remedy
5 is necessary for remediation of the central area of the Site,
6 Respondent shall design the contingency extraction and treatment
7 remedy for the central area as specified in the ROD.

8 C. Upon EPA's approval of the Sampling and Analysis Plan
9 to be developed by the Respondent pursuant to the SOW, Respondent
10 shall monitor and sample in accordance with the Sampling Analysis
11 Plan ("SAP").

12 D. Respondent shall conduct all Work in accordance with the
13 SOW, the ROD, CERCLA, the NCP, and all applicable EPA guidance.

14 E. If EPA determines that modification to the Work
15 specified in the SOW and/or in work plans, specifications, or
16 deliverables developed pursuant to the SOW is necessary for the
17 remedial design for the central or eastern areas, including but
18 not limited to modification of the SOW to provide tasks for the
19 design of the contingency remedy for the central area, EPA may
20 require that such modification be incorporated in the SOW and/or
21 work plans, provided, however, that a modification may only be
22 required to the extent that it is consistent with this Consent
23 Order and with the scope of the remedy selected in the ROD.

24 F. Respondent shall coordinate and cooperate with other
25 parties at the Site in carrying out the requirements of this
26 Consent Order. Failure of Respondent to use best efforts to
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1 coordinate and cooperate with the other parties shall constitute
2 a violation of this Consent Order by Respondent.

3 G. Respondent shall perform the tasks and submit the
4 deliverables set forth in Section III. of the SOW in accordance
5 with the SOW and the schedule therein. All draft deliverables
6 must contain sufficient information to allow for EPA's detailed
7 technical review and comment. Each deliverable must include the
8 items listed with it, as well as items described in the Remedial
9 Design Work Plan to be prepared by the Respondent and submitted
10 to EPA for review and approval.

11 H. Except for the Health and Safety Plan, the initial
12 draft reports when appropriate, and quarterly progress reports,
13 EPA will approve, comment upon and request modifications, or
14 disapprove each deliverable submitted by Respondent under this
15 Consent Order and the SOW. Respondent shall submit the final
16 deliverables incorporating EPA's comments pursuant to the SOW in
17 accordance with the schedule to be given by EPA and which, upon
18 issuance, is incorporated into and becomes a part of this Consent
19 Order. Final deliverables shall clearly indicate where EPA's
20 comments have been incorporated into the document. In the event
21 of any disapproval and/or request for modification of the final
22 deliverable, EPA shall notify Respondent in writing of EPA's
23 decision and specify the reasons for such disapproval and
24 required modifications.

25 I. Notwithstanding any action by EPA, Respondent remains
26 fully responsible for ensuring that the Work conducted by
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1 Respondent and the Remedial Design prepared by Respondent are in
2 accordance with and will achieve the Performance Standards in the
3 ROD and SOW. Nothing in this Consent Order or in the SOW, or in
4 EPA's approval of any workplan, deliverable, or any other
5 submission by Respondent, shall be deemed to constitute a
6 warranty or representation of any kind by EPA that full
7 performance of the Work will achieve the Performance Standards
8 established in the ROD and SOW. Respondent's compliance with
9 such approved documents and plans does not foreclose EPA from
10 seeking additional work to achieve the applicable performance
11 standards.

12 J. Any reports, plans, specifications, schedules, and
13 attachments required of Respondent by this Consent Order or the
14 SOW are, upon approval by EPA, incorporated into this Consent
15 Order. Except with respect to any extensions allowed by EPA in
16 writing, or excused by the provisions of Section XV (Force
17 Majeure), any non-compliance with such EPA-approved reports,
18 plans, specifications, schedules, and attachments shall be
19 considered a violation of this Consent Order and will subject
20 Respondent to stipulated penalties in accordance with Section XIV
21 of this Consent Order.

22 K. If there are any unanticipated or changed circumstances
23 at the Site that may significantly affect the Work or schedule,
24 Respondent shall notify the EPA Project Coordinator by telephone
25 within 24 hours of the discovery of the unanticipated or changed
26 circumstances.

1 L. If EPA determines that additional tasks, including, but
2 not limited to, additional investigatory work, or engineering
3 evaluation, are necessary to complete the Work, Respondent shall
4 submit a workplan to EPA for the completion of such additional
5 tasks within thirty (30) days, or such longer time as EPA agrees,
6 of EPA's notification of Respondent of the necessity of the
7 additional tasks. Such additional tasks will not include work in
8 the Western contaminant area and will not include Excluded Work
9 identified in Subsection B. of Section VIII; and such additional
10 tasks may only be required to the extent that they are consistent
11 with the scope of the remedy selected in the ROD. The workplan
12 shall be completed in accordance with the same standards,
13 specifications, requirements, and schedules determined or
14 approved by EPA. EPA will review and comment upon, and approve,
15 approve with modifications, or disapprove of the workplan. Upon
16 approval (including approval with modifications) of the workplan
17 by EPA, Respondent shall implement the additional work in
18 accordance with the schedule of the approved workplan. Failure
19 to comply with this Subsection, including, but not limited to,
20 failure to submit a satisfactory workplan, shall subject
21 Respondent to stipulated penalties as set forth in Section XIV.

22 M. All documents, including progress and technical
23 reports, approvals, disapprovals, and other correspondence to be
24 submitted pursuant to this Consent Order, shall be sent to the
25 following addressees or to such other addresses as the parties
26 hereafter may designate in writing, and shall be deemed submitted
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1 on the date received by EPA or Respondent as appropriate. The
2 number of copies to be provided to EPA for major submittals is
3 set forth in the SOW; for other submittals not so listed,
4 Respondent shall submit one copy to EPA.

5 1. Documents to be submitted to EPA shall be sent to:

6 Melissa Pennington
7 Remedial Project Manager (SFD-8-1)
8 Superfund Division
9 U.S. EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105

10 A copy of each document shall be submitted to
11 EPA's Contractor:

12 Misael Cabrera
13 Project Manager
14 CH2MHill
1620 W. Fountainhead Parkway, Suite 550
Tempe, AZ 85282-1843.

15 Two copies of each document shall be submitted to
16 the State:

17 Stephanie Ciekot
18 State Project Manager
3033 N. Central Avenue, 7th Floor
Phoenix, AZ 85012.

19 2. Documents to be submitted to Respondent shall be
20 sent to:

21 M. Kelly McTigue
22 Weston Benshoof Rochefort Rubalcava MacCuish, LLP
444 South Flower Street, 43rd Floor
23 Los Angeles, CA 90071

24 IX. DESIGNATED PROJECT COORDINATORS

25 A. EPA hereby designates the following person as Project
26 Coordinator:

27 Melissa Pennington

1 Remedial Project Manager (SFD-8-1)
2 Superfund Division
3 U.S. EPA, Region 9
4 75 Hawthorne Street
5 San Francisco, CA 94105
6 Telephone: (415) 744-1141
7 Facsimile: (415) 744-1796.

8 The EPA Project Coordinator shall have the authorities, duties,
9 and responsibilities vested in the Remedial Project Manager by
10 the NCP, and will be EPA's designated representative at the Site.

11 B. Within 15 days of the effective date of this Order,
12 Respondent shall designate a Project Coordinator who shall be
13 responsible for overseeing the implementation of this Consent
14 Order.

15 C. To the maximum extent possible, all oral communications
16 between Respondent and EPA concerning the activities performed
17 pursuant to this Consent Order shall be directed through the
18 Project Coordinators. All documents, including progress and
19 technical reports, approvals, and other correspondence concerning
20 the activities performed pursuant to the terms and conditions of
21 this Consent Order, shall be delivered in accordance with
22 Subsection L. of Section VIII above.

23 D. The Parties may change their respective Project
24 Coordinators. Such a change shall be accomplished by notifying
25 the other party in writing at least one week prior to the change.

26 E. The EPA Project Coordinator shall also have the
27 authority vested in the On-Scene-Coordinator ("OSC") by the NCP,
28 unless EPA designates a separate individual as OSC, who shall
then have such authority.

1 F. The absence of the EPA Project Coordinator or OSC from
2 the Site shall not be cause for the stoppage of Work.

3 X. SITE ACCESS

4 A. To the extent that Respondent requires access to land
5 other than land it owns or occupies, Respondent will use its best
6 efforts to obtain access agreements from the present owners or
7 lessees within sixty (60) days of the effective date of this
8 Consent Order. If the need for access to particular properties
9 does not become evident to Respondent until after the effective
10 date of this Consent Order, then Respondent will use its best
11 efforts to obtain access agreements from the present owners or
12 lessees of those properties within thirty (30) days of the date
13 on which the need for such access becomes evident. EPA's
14 statement to Respondent that access to a property is necessary is
15 sufficient evidence of such necessity. "Best efforts" shall
16 include providing reasonable compensation for access, consistent
17 with the fair market value for such access or use.

18 B. Such access agreements shall provide reasonable access
19 for EPA, its contractors and oversight officials, the State and
20 its contractors, and Respondent and its authorized
21 representatives. In the event that Respondent is not able to
22 obtain site access to property owned or controlled by persons or
23 entities other than Respondent, Respondent shall notify EPA
24 promptly regarding both the lack of, and efforts to obtain, such
25 access.

26 C. No conveyance of title, easement, or other interest in
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1 property owned by Respondent at the Site where contamination
2 exists or may exist, or where work is occurring or may occur
3 pursuant to the SOW or the ROD, shall be consummated by
4 Respondent without express notice of the terms of this Consent
5 Order to the recipient of such conveyance, and without provision
6 permitting the continuous implementation of the provisions of
7 this Consent Order, and without notice to EPA.

8 D. Respondent shall permit EPA, or its authorized
9 representatives, to have reasonable access at all reasonable
10 times to the Respondent's properties at and near the Site to
11 monitor any activity conducted pursuant to the SOW or conduct
12 such tests or investigations as EPA deems necessary. Nothing in
13 this Consent Order shall be deemed a limit upon EPA's authority
14 under federal law to gain access to the Site. Nothing in this
15 Consent Order shall require Respondent to violate any requirement
16 of federal law regarding security, secrecy, or confidentiality.

17 XI. SAMPLING, ACCESS, AND DATA/DOCUMENT AVAILABILITY

18 A. Respondent shall submit to EPA the results of all
19 sampling and/or tests or other analytical data generated by
20 Respondent or on its behalf with respect to implementing this
21 Consent Order in a summary form in the quarterly progress reports
22 required by the SOW. Respondent shall maintain custody of all
23 information and data relied upon or referenced in the Final
24 Remedial Design Report and any deliverable. Upon request by EPA,
25 Respondent shall provide such information and data to EPA within
26 ten (10) days of EPA's request, in paper and electronic form.

1 B. Respondent shall report in the quarterly progress
2 reports all communications between Respondent or its
3 representatives and local, state, and other federal authorities
4 related to the Work.

5 C. At the request of EPA, Respondent shall provide split
6 or duplicate samples to EPA and/or its authorized representatives
7 of any samples collected by Respondent as part of the Work. At
8 the request of EPA, Respondent shall allow EPA to be present at
9 any sample collection activity which occurs pursuant to this
10 Consent Order or as a function of the Work. Respondent shall
11 notify EPA of any planned sample collection activity in the
12 preceding quarterly report, and at least seven (7) days before
13 such sampling is to occur.

14 D. Respondent shall use quality assurance ("QA")
15 procedures and protocols in accordance with the approved Quality
16 Assurance Project Plan ("QAPP"), and shall utilize standard EPA
17 sample chain of custody procedures, as documented in the
18 following documents: EPA Requirements for Quality Assurance
19 Project Plans for Environmental Data Operations, May, 1994 (EPA
20 QA/R-5), Guidance for Quality Assurance Project Plans, February,
21 1998 (EPA QA/G-5), Guidance for Data Quality Objectives (DQO)
22 Process, September, 1994 (EPA QA/G-4), Laboratory Documentation
23 Requirements for Data Validation, September, 1994 (EPA QA/G-4).
24 A QAPP should be submitted to EPA for review and approval prior
25 to sampling. In order to provide quality assurance and maintain
26 quality control regarding all samples collected pursuant to this
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1 Consent Order, Respondent shall:

2 1. Use a laboratory which has a documented Quality
3 Assurance Program that complies with EPA guidance document EPA
4 QA/R-5 and all appropriate EPA guidance and has been submitted
5 for EPA review and approval prior to sampling.

6 2. Ensure that EPA personnel and/or EPA authorized
7 representatives are allowed access to the laboratory and
8 personnel utilized by Respondent for analysis, and provide EPA
9 with all QA/QC documentation of all sampling, tests, raw data,
10 and other technical data generated by Respondent or on
11 Respondent's behalf pursuant to this Consent Order.

12 3. Ensure that the laboratory used by Respondent for
13 analysis performs its analysis according to a method or methods
14 deemed satisfactory to EPA through the use of data validation.
15 Ten percent (10%) of the data generated should be validated by an
16 independent third party.

17 E. Respondent shall permit EPA, and its authorized
18 representative to have reasonable access at all times to the Site
19 to monitor any activity conducted pursuant to the approved Work
20 Plans or conduct such tests or investigations or any other
21 activity as EPA deems necessary as part of the Work or the
22 remedial design.

23 F. Respondent shall permit EPA and/or its authorized repre-
24 sentative to inspect and copy, or shall provide EPA with copies
25 of, all records, documents, and other writings in the possession
26 or control of Respondent, its agent(s) or contractor(s), not
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1 presently in the possession of EPA regarding hazardous substance
2 disposal or contamination at, or released at or from, the Site or
3 any facility there. Respondent shall also permit EPA and/or its
4 authorized representative to inspect and copy, or shall provide
5 EPA with copies of, all records, documents, and other writings in
6 the possession or control of Respondent, its agent(s), including
7 all sampling and monitoring data, related to carrying out the
8 Work or generated pursuant to this Consent Order. Nothing in
9 this Consent Order shall be interpreted as limiting EPA's
10 inspection authority under federal law.

11 G. Respondent may assert a confidentiality claim, covering
12 part or all of the information requested by this Consent Order
13 pursuant to 40 C.F.R. § 2.203(b). Analytical data and data
14 covered by Section 104(e)(7)(F) of CERCLA (42
15 U.S.C. § 9604(e)(7)(F)) shall not be claimed as confidential by
16 Respondent and shall be provided to EPA. Information determined
17 to be confidential by EPA will be afforded the protection
18 specified in 40 C.F.R. Part 2, Subpart B. If no such claim ac-
19 companies the information when it is submitted to EPA, such
20 information may be made available to the public by EPA without
21 further notice to Respondent.

22 H. If, at any time during the Remedial Design process,
23 Respondent becomes aware of the need for additional data beyond
24 the scope of the approved Work Plans, Respondent shall have an
25 affirmative obligation to submit to the EPA Project Coordinator
26 within 20 days of becoming aware of the need for such additional
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1 data a memorandum documenting the need for additional data.

2 I. Except for information that is afforded confidential
3 protection in accordance with Subsection G, all data, factual
4 information, and documents submitted by Respondent to EPA
5 pursuant to this Consent Order shall be subject to public
6 inspection.

7 J. By signing this Agreement, Respondent certifies that,
8 to the best of its knowledge and belief, it has:

9 1. conducted a thorough, comprehensive, good faith
10 search for documents, and has fully and accurately disclosed to
11 EPA, all information currently in its possession, or in the
12 possession of its officers, directors, employees, contractors or
13 agents, which relates in any way to the ownership, operation or
14 control of the Site, or to the ownership, possession, generation,
15 treatment, transportation, storage or disposal of a hazardous
16 substance, pollutant or contaminant at or in connection with the
17 Site;

18 2. not altered, mutilated, discarded, destroyed or
19 otherwise disposed of any records, documents or other information
20 relating to its potential liability for hazardous substances at
21 the Site, after notification of potential liability; and

22 3. fully complied with any and all EPA requests for
23 information regarding the Site pursuant to Section 104(e) of
24 CERCLA, 42 U.S.C. § 9604(e).

25 XII. RECORD PRESERVATION

26 A. Respondent agree that it shall maintain and preserve,
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1 during the pendency of this Consent Order and for a minimum of
2 ten (10) years after the effective date of this Consent Order, a
3 central depository of the records and documents required to be
4 prepared by Respondent under the SOW. Respondent also shall keep
5 for the same time period, all documents referred to in section
6 XI. After this ten (10) year period, Respondent shall notify EPA
7 in writing at least 90 days before any documents are scheduled to
8 be destroyed. If EPA requests that the documents be saved,
9 Respondent shall, at no cost to EPA, provide EPA with the
10 documents.

11 XIII. DISPUTE RESOLUTION

12 A. If Respondent objects to any EPA decision under this
13 Consent Order, Respondent shall notify EPA in writing of its
14 objections within ten (10) calendar days of receipt of the
15 decision. EPA and Respondent will then have an additional four-
16 teen (14) calendar days from receipt by EPA of the notification
17 of objection to reach agreement. At the end of the fourteen (14)
18 day discussion period, if EPA and Respondent have not reached
19 agreement, EPA and Respondent shall provide a written statement
20 of their positions to each other and to the Director of the
21 Superfund Division, Region 9, EPA. The Director may delegate the
22 Dispute to the Deputy Director or other appropriate person.

23 B. The Director or delegate shall issue a written decision
24 within thirty (30) days after receipt of the written statement,
25 which EPA shall provide to Respondent. Upon the final decision
26 of the Director, Respondent shall implement the Director's
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1 decision.

2 C. Use of the dispute resolution provision will not relieve
3 Respondent of the duty to complete tasks in a timely manner in
4 accordance with the SOW and the schedule set forth in, or
5 established pursuant to, the SOW or this Consent Order. This
6 dispute resolution provision or EPA's decision pursuant to this
7 provision does not grant or imply jurisdiction to any court to
8 review EPA's decisions pursuant to this Consent Order.

9 XIV. STIPULATED PENALTIES

10 A. Except with respect to any extensions allowed by EPA in
11 writing, or excused by the provisions of Section XV (Force
12 Majeure), for each day in which Respondent fails to submit a
13 report or document, or in which Respondent otherwise fails to
14 achieve the requirements of this Consent Order, Respondent agrees
15 to pay the sum set forth in Subsections B and C below as
16 stipulated penalties. These penalties shall accrue commencing
17 upon the earliest of the following occurrences: Respondent's
18 receipt of the written determination of disapproval, as specified
19 in Section VIII; Respondent's failure to meet the schedule
20 specified in the SOW or modified by EPA; or Respondent's receipt
21 of written notice from EPA that a violation of this Consent Order
22 has occurred. The amounts of these penalties are not subject to,
23 and Respondent shall not challenge them, under the Dispute
24 Resolution provisions of Section XIII. A decision by EPA that a
25 violation has occurred is subject to the Dispute Resolution
26 provision. Dispute Resolution shall not stay the accrual of
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1 these stipulated penalties. EPA may in its sole discretion
2 reduce or waive any accrued penalties.

3 B. The following stipulated penalties shall be paid by
4 Respondent per violation per day to the United States for each
5 day Respondent fails to perform the tasks, submit deliverables on
6 schedule, or satisfactorily produce the deliverables required in
7 Section VIII of this Consent Order.

8	Penalty Per Violation	Period of Noncompliance
9	<u>Per Day</u>	<u>In Days</u>
10	\$1,000	1-7
11	\$3,000	8-30
12	\$5,000	31 -90
13	\$25,000	91 and beyond

14 C. The following stipulated penalties shall be paid by the
15 Respondent per violation per day to the United States for failure
16 to comply with the requirements of this Consent Order with the
17 exception of any failures listed in subsection B, above.

18	Penalty Per Violation	Period of Noncompliance
19	<u>Per Day</u>	<u>In Days</u>
20	\$1,000	1-7
21	\$2,000	8-30
22	\$3,000	31-90
23	\$12,500	91 and beyond

24 D. Respondent's payment of stipulated penalties shall be
25 due upon written demand by the Director, Superfund Division, U.S.
26 EPA, Region 9, by certified check made payable to the United
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1 States Treasury and addressed to:

2 U.S. Environmental Protection Agency
3 Region 9, Attn: Superfund Accounting
4 P.O. Box 360863M
Pittsburgh, PA 15251

5 Respondent shall send each check with a transmittal letter that
6 shall identify the Site by name and identification number and
7 shall make reference to this Consent Order. Respondent shall
8 send simultaneously to the EPA Project Coordinator a notification
9 of any penalty paid, including a photocopy of the check and the
10 transmittal letter.

11 E. The stipulated penalties provisions, and any award of
12 such penalties, do not preclude EPA from pursuing any other
13 remedies or sanctions which are available to EPA in the event of
14 Respondent's failure to comply with this Consent Order.

15 XV. FORCE MAJEURE

16 A. If an event occurs which causes delay in the
17 achievement of the requirements of this Consent Order, Respondent
18 shall have the burden of proving that the delay was caused by
19 circumstances beyond the control of Respondent, its contractors,
20 and agents and cannot be overcome by best efforts to fulfill the
21 obligation. Economic hardship and increased costs of performance
22 shall not be considered events beyond the control of Respondent,
23 its contractors and agents, and shall not trigger the force
24 majeure clause. If EPA agrees that the delay or anticipated
25 delay is attributable to a force majeure, the time for
26 performance of the obligations under this Consent Order that are
27 affected by the force majeure will be extended by EPA for such

1 time as it is necessary, in EPA's judgment, to complete those
2 obligations. An extension of time for performance of obligations
3 affected by the force majeure shall not, of itself, extend the
4 time for performance of any other obligations under the Consent
5 Order. EPA will notify Respondent in writing of the length of
6 the extension, if any, for performance of the obligations EPA
7 deems to be affected by the force majeure. If EPA does not agree
8 that the delay or anticipated delay has been or will be caused by
9 a force majeure, EPA will notify Respondent in writing of its
10 decision. Respondent shall adopt all reasonable measures to
11 avoid or minimize any delay caused by a force majeure.

12 B. When an event occurs or has occurred that may delay or
13 prevent the performance of any obligation under this Consent
14 Order, which Respondent believes is due to force majeure,
15 Respondent shall notify by telephone the EPA Project Coordinator,
16 or, in his or her absence, the Director of the Superfund Division
17 of EPA, Region 9, within two (2) Working Days after Respondent
18 first knew or should have known of the event causing the delay or
19 anticipated delay. Oral notification shall be followed by
20 written notification, made within seven (7) Working days of when
21 Respondent knew or should have known of the event causing the
22 delay or anticipated delay. The written notification shall fully
23 describe and enclose all documents relating to: the
24 circumstances of and reasons for the delay; the anticipated
25 duration of the delay; actions taken or to be taken to prevent or
26 minimize the delay; a schedule for implementation of any measures
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1 to be taken to mitigate the effect of the delay; the rationale
2 for attributing the delay to a force majeure and the reason the
3 delay is beyond the control of Respondent, its contractors and
4 its agents; and any circumstances which may cause or contribute
5 to an endangerment to public health, welfare, or the environment.

6 C. Failure of Respondent to comply with the force majeure
7 notice requirements will be deemed an automatic forfeiture of its
8 right to request a delay. Respondent shall be deemed to have
9 notice of any circumstances of which its contractors or
10 subcontractors or agents had notice.

11 D. If EPA and Respondent cannot agree that any delay in
12 compliance with the requirements of this Consent Order has been
13 or will be caused by the circumstances beyond the control of
14 Respondent, its contractors, and agents, or on the duration of
15 any delay necessitated by a force majeure event, the dispute
16 shall be resolved according to the dispute resolution provisions
17 in Section XIII. Respondent shall have the burden of proving by
18 a preponderance of the evidence: that the delay or prevention
19 was caused by circumstances beyond the control of Respondent and
20 its contractors and agents; that reasonable measures were taken
21 to avoid or minimize delay; and the necessity of the duration of
22 the delay.

23 XVI. RESERVATION OF RIGHTS

24 A. Notwithstanding compliance with the terms of this
25 Consent Order, including the completion of an EPA approved Final
26 Remedial Design, Respondent is not released from liability for
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1 any actions beyond the Work, Excluded Work, and other
2 requirements of this Consent Order. EPA reserves the right to
3 take any enforcement action pursuant to CERCLA and/or any other
4 legal authority, including the right to seek response costs,
5 injunctive relief, monetary penalties, and punitive damages for
6 any violation of law or this Consent Order. EPA expressly
7 reserves all rights and defenses that it may have, including
8 EPA's right both to disapprove of work performed by Respondent
9 and to request that Respondent perform tasks in addition to those
10 detailed in the SOW, as provided in this Consent Order. EPA
11 expressly reserves the right to take any enforcement action
12 pursuant to CERCLA and/or any other legal authority, including
13 the right to seek response costs, injunctive relief, monetary
14 penalties and punitive damages relating to the remedial action or
15 for any additional work which EPA determines is necessary to
16 complete the Remedial Design and which the Respondent does not
17 fully perform pursuant to Section VIII of this Consent Order.
18 EPA reserves the right to undertake removal actions (including
19 undertaking remedial design) and/or remedial actions at any time.
20 EPA reserves the right to seek reimbursement from Respondent for
21 all response costs, including past and future costs incurred by
22 the United States at the Site, that are not reimbursed by the
23 Respondent under this Consent Order. Respondent reserves all
24 rights and defenses that it may have to any such claims or
25 actions. Nothing in this Consent Order constitutes or shall be
26 interpreted to be an admission, adjudication, or waiver of EPA's
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1 contention that the contaminant areas are commingled and
2 indivisible, and that Respondent is liable for areas in addition
3 to the central area of the Site. Nothing in this Consent Order
4 shall affect in any way any claim against any entity not a party
5 to this Consent Order.

6 XVII. REIMBURSEMENT OF RESPONSE COSTS

7 A. Nothing in this Consent Order shall affect any existing
8 liability that Respondent has for payment of any EPA response or
9 other costs related to the Site. Annually or at other times,
10 including periods of longer duration than annually, in EPA's sole
11 discretion, EPA will submit to Respondent documentation for
12 removal and response costs, including, but not limited to,
13 oversight costs, incurred by the U.S. Government associated with
14 the conduct of the Work required of Respondent under this Consent
15 Order. For purposes of this subsection, such documentation of
16 such costs shall not include the costs of Excluded Work
17 identified in Subsection B. of Section VIII. EPA's Agency
18 Financial Management System summary data (SCORES Report, SCORPIO
19 Report, or the equivalent) shall serve as the documentation for
20 payment demands. Respondent shall, within thirty (30) calendar
21 days of receipt of each accounting, remit a check for the amount
22 of those costs made payable to the Hazardous Substance Response
23 Trust Fund. Checks must specifically reference the identity of
24 the Site and be addressed to:

25 U.S. Environmental Protection Agency
26 Region 9, Attn: Superfund Accounting
27 P.O. Box 360863M
28 Pittsburgh, PA 15251

1 Checks must be accompanied by a transmittal letter specifically
2 referring to the identity of the Site, and a copy of the
3 transmittal letter and check shall be sent simultaneously to the
4 EPA Project Coordinator.

5 B. EPA reserves the right to bring an action against
6 Respondent pursuant to Section 107 of CERCLA, 42 U.S.C. § 9607,
7 for recovery of all response costs, including, but not limited
8 to, oversight costs, incurred by the United States related to
9 this Consent Order and not reimbursed by Respondent, as well as
10 any other unreimbursed past and future costs incurred by the
11 United States in connection with response activities conducted
12 pursuant to CERCLA at the Site. Interest will accrue at the
13 interest rate specified pursuant to section 107 of CERCLA, 42
14 U.S.C. section 9607, for any unpaid amount, beginning thirty (30)
15 days after Respondent's receipt of the documentation for costs
16 submitted to Respondent pursuant to Subsection A. of this
17 Section.

18 XVIII. OTHER CLAIMS

19 A. This Consent Order does not release Respondent from any
20 claim, cause of action or demand in law or equity by the United
21 States, including claims related to the Western contaminant area,
22 except for, following completion by Respondent of the Work
23 required by this Consent Order, administrative claims for those
24 response costs, civil penalties, and oversight costs fully paid
25 by Respondent pursuant to and in compliance with this Consent
26 Order, and the Work to be Performed by Respondent pursuant to
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1 Subsection B of Section VIII., and the Excluded Work identified
2 in Subsection B of Section VIII.

3 B. By entering into this Consent Order, Respondent waives
4 any right to seek reimbursement or present any claim under
5 Sections 106, 111, or 112 of CERCLA, 42 U.S.C. §§ 9606, 9611, or
6 9612, for any Work performed pursuant to this Consent Order and
7 any modifications thereto.

8 C. Nothing in this Consent Order shall constitute or be
9 construed as a release from any claim, cause of action or demand
10 in law or equity against any person, firm, partnership,
11 subsidiary or corporation not a signatory to this Consent Order
12 for any liability it may have arising out of or relating in any
13 way to the generation, storage, treatment, handling,
14 transportation, release, or disposal of any hazardous substances,
15 pollutants, or contaminants found at, taken to, or taken from the
16 Site.

17 D. Respondent shall bear its own attorneys' fees and costs
18 with respect to all matters associated with this Consent Order.

19 XIX. APPLICABLE LAWS

20 Respondent shall undertake all actions required by this
21 Consent Order in accordance with the requirements of all
22 applicable local, state, and federal laws and regulations unless
23 an exemption from such requirements is specifically provided by
24 law or in this Consent Order.

25 XX. FINANCIAL ASSURANCE, INSURANCE, AND INDEMNIFICATION

26 A. Within 30 days of the effective date of the Consent
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1 Order, Respondent shall establish and maintain financial security
2 in the amount of \$750,000 in one or more of the following forms:

3 (a) A surety bond guaranteeing performance of the Work;

4 (b) One or more irrevocable letters of credit equaling
5 the total estimated cost of the Work;

6 (c) A trust fund;

7 (d) A guarantee to perform the Work by one or more
8 parent corporations or subsidiaries, or by one or more unrelated
9 corporations that have a substantial business relationship with
10 Respondent; or

11 (e) A demonstration that Respondent satisfies the
12 requirements of 40 C.F.R. Part 264.143(f);

13 B. If Respondent seeks to demonstrate the ability to
14 complete the Work through a guarantee by a third party pursuant
15 to Subsection A.(d) of Section XX. of this Consent Order,
16 Respondent shall demonstrate that the guarantor satisfies the
17 requirements of 40 C.F.R. Part 264.143(f). If Respondent seeks
18 to demonstrate its ability to complete the Work by means of the
19 financial test or the corporate guarantee pursuant to Subsection
20 A.(d) or (e) of Section XX., it shall resubmit sworn statements
21 conveying the information required by 40 C.F.R. Part 264.143(f)
22 annually, on the anniversary of the effective date of this
23 Consent Order. In the event that EPA determines at any time that
24 the financial assurances provided pursuant to this Section are
25 inadequate, Respondent shall, within 30 days of receipt of notice
26 of EPA's determination, obtain and present to EPA for approval
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1 one of the other forms of financial assurance listed in this
2 Section. Respondent's inability to demonstrate financial ability
3 to complete the Work shall not excuse performance of any
4 activities required under this Consent Order.

5 C. If Respondent shows that the estimated cost to complete
6 the remaining Work has diminished below the amount set forth in
7 Subsection A. of Section XX. after entry of this Consent Order,
8 Respondent may, on any anniversary date of entry of this Consent
9 Order, or at any other time agreed to by EPA, reduce the amount
10 of the financial security provided under this Section to the
11 estimated cost of the remaining work to be performed, including a
12 contingency for cost overruns. Respondent shall submit a
13 proposal for such reduction to EPA, in accordance with the
14 requirements of this Section, and may reduce the amount of the
15 security upon approval by EPA.

16 D. Respondent may change the form of financial assurance
17 provided under this Section at any time, upon notice to and
18 approval by EPA, provided that the new form of assurance meets
19 the requirements of this Section.

20 E. Prior to commencement of any work under this Consent
21 Order, Respondent shall ensure that its contractors secure, and
22 maintain in force for the duration of this Consent Order, and for
23 two years after the completion of all activities required by this
24 Consent Order:

25 1. Comprehensive General Liability ("CGL") and
26 automobile insurance with limits of \$3 million dollars, combined
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1 aggregate limit.

2 2. Professional Errors and Omissions Insurance in the
3 amount of \$3 million aggregate limit.

4 F. For the duration of this Consent Order, Respondent shall
5 satisfy, or shall ensure that its contractors or subcontractors
6 satisfy, all applicable laws and regulations regarding the
7 provision of employers' liability insurance and workers'
8 compensation insurance for all persons performing work on behalf
9 of Respondent, in furtherance of this Consent Order.

10 G. Prior to commencement of any work under this Consent
11 Order, Respondent shall certify to EPA that the required
12 insurance has been obtained by Respondent's contractors.

13 H. Notwithstanding any approvals which may be granted by
14 EPA, Respondent agrees to indemnify and hold EPA and its
15 agencies, departments, agents, contractors, and employees, and
16 any other United States Government agency who conducts oversight
17 of the Work, harmless from any and all claims or causes of action
18 arising from or on account of acts or omissions of Respondent,
19 its officers, employees, receivers, trustees, agents, assigns,
20 authorized representatives, or contractors, in carrying out the
21 activities pursuant to this Consent Order. Nothing in this
22 Consent Order shall require indemnification by Respondent with
23 respect to any claim or causes of action against EPA based on the
24 negligent action by EPA (not including oversight or approval of
25 Respondent's plans or activities).

26 I. Respondent is not, and shall not hold itself out to be,
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1 an agent or representative of EPA in the performance of this
2 Consent Order. EPA is not a party in any contract involving the
3 Respondent in the performance of Work pursuant to this Consent
4 Order.

5 XXI. COMMUNITY RELATIONS

6 EPA will implement a Community Relations Program in
7 accordance with Agency policies, guidance documents, and public
8 comment policy. Respondent shall participate in EPA's community
9 relations activities when deemed appropriate by EPA and under
10 EPA's guidance and oversight, including but not limited to
11 attendance at public meetings and community group meetings
12 convened by EPA, provision of information to the public, and
13 notification of community members of anticipated drilling of
14 wells in areas at and around the Site.

15 XXII. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

16 A. This Consent Order is effective on the date signed by
17 EPA.

18 B. This Consent Order, the SOW and any schedule, work plan
19 or report hereunder, may be amended by mutual written agreement
20 of EPA and Respondent and shall be effective when signed by EPA.

21 C. No informal advice, guidance, suggestions, or comments
22 provided by EPA regarding reports, plans, specification,
23 schedules, or any other writing submitted by Respondent will be
24 construed as relieving Respondent of its obligation to obtain
25 formal EPA approval as may be required by this Consent Order.

26 D. Any deliverables, plans, technical memoranda, reports
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1 (other than progress reports) specifications, schedules, and
2 attachments required by this Consent Order, are, upon issuance or
3 approval by EPA, incorporated into this Consent Order by this
4 reference. Any non-compliance with such EPA-approved
5 deliverables, plans, technical memoranda, reports,
6 specifications, schedules, and attachments shall be considered a
7 failure to achieve the requirements of this Consent Order and may
8 subject Respondent to the penalties set forth in Section XIV
9 (Stipulated Penalties).

10 XXIII. CONTRIBUTION PROTECTION

11 A. With regard to claims for contribution against
12 Respondent for matters addressed in this Consent Order,
13 Respondent is entitled to such protection from contribution
14 actions or claims to the fullest extent provided by CERCLA
15 §113(f)(2), 42 U.S.C. §9613(f)(2), except that the "matters
16 addressed" in this Consent Order, and such contribution
17 protection, are limited to all of the Remedial Design Work and
18 Excluded Work as described in Subsection B. of Section VIII., and
19 Costs paid pursuant to Section XVII, Reimbursement of Response
20 Costs; "matters addressed" do not include any work for or
21 relating to the Western area of contamination and do not include
22 work for or relating to the contingency remedy for the eastern
23 area of contamination, and do not include past or future response
24 costs or past or future response actions conducted or to be
25 conducted at the Site. Nothing in this Section shall affect
26 Respondent's obligations to the United States under this Consent
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1 Order.

2 XXIV. COUNTERPARTS

3 This Consent Order may be executed and delivered in any
4 number of counterparts, each of which, when executed and
5 delivered, shall be deemed to be an original, but such
6 counterparts shall together constitute one and the same document.

7 XXV. PARTIES BOUND

8 A. This Consent Order shall apply to and be binding upon
9 Respondent (identified in Subsection I. of Section III.) and EPA,
10 their agents, successors, and assignees. No change in ownership
11 or corporate or partnership status will alter Respondent's
12 obligations under this Consent Order. The signatories to this
13 Consent Order certify that they are authorized to execute and
14 legally bind the parties they represent to this Consent Order.
15 Within fourteen (14) calendar days of the effective date of this
16 Consent Order or of the date of retention of any contractors,
17 subcontractors, laboratories, and consultants retained to conduct
18 any portion of the Work performed pursuant to this Consent Order,
19 Respondent shall provide a copy of this Consent Order to all such
20 retained contractors, subcontractors, laboratories, and
21 consultants. Respondent shall provide a copy of this Consent
22 Order to any subsequent owner(s) or successor(s) of it before
23 ownership rights are transferred.

24 XXVI. TERMINATION AND SATISFACTION

25 A. Except for any obligations imposed or rights granted
26 pursuant to Section XII (Record Preservation), Section XIV
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(Stipulated Penalties), Section XVII (Reimbursement of Response Costs), Section XVI (Reservation of Rights), Section XX (Indemnification), Section XVIII (Other Claims), and Section XXIII (Contribution Protection), the provisions of the Consent Order shall be deemed satisfied upon Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that all of the terms of this Consent Order, including any additional tasks pursuant to Subsection K of Section VIII. which EPA has determined to be necessary, have been completed.

XXVII. ATTACHMENTS

The following documents are attached to and incorporated into this Consent Order:

"Attachment A" is the Remedial Design Statement of Work

"Attachment B" is the Record of Decision for the VOCs in Groundwater Operable Unit of the Indian Bend Wash Site - South Study Area.

IT IS SO AGREED AND ORDERED:

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

By:



Date:

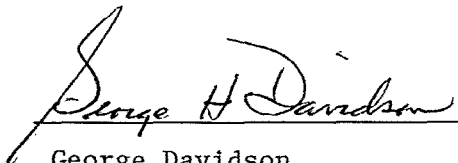
27 Sep 2000

for

John Kemmerer
Chief, Site Cleanup Branch
Superfund Division
Region 9

1
2 IMC MAGNETICS CORPORATION
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4
5 By:


George Davidson

Date:

8-11-00

6 President, IMC Magnetix Corp.
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STATEMENT OF WORK
FOR REMEDIAL DESIGN
IMC MAGNETICS CORP.

INDIAN BEND WASH SUPERFUND SITE, SOUTH AREA

TEMPE, ARIZONA

PREPARED BY
US ENVIRONMENTAL PROTECTION AGENCY
REGION IX
SAN FRANCISCO, CALIFORNIA

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I. INTRODUCTION

This Statement of Work (SOW) outlines the work to be performed by the Respondent at the Indian Bend Wash Superfund Site, South Area (IBW-South) in Tempe, Arizona (the Site) pursuant to the Administrative Order on Consent (AOC) between Respondent and EPA. EPA signed a Record of Decision (ROD) for the VOCs in Groundwater Operable Unit (OU) for the Site on September 30, 1998. The ROD describes the groundwater operable unit remedy for three VOC contaminant areas: the western, central and eastern contaminant areas. The remedy is summarized in Section II of this SOW. The work required under this SOW is the performance of portions of the remedial design for the groundwater remedy, except for the western contaminant area, as described in the ROD, and the Excluded Work, as identified in Paragraph VIII.B. of the Consent Order.

Respondent is responsible for preparing and performing portions of the remedial design specified in Section III. of this SOW for the selected remedy for the VOC contaminants in groundwater. This SOW does not require Respondent to conduct the remedial design for the western contaminant area, as described in the ROD, or for the contingency remedy, and does not require Respondent to conduct the Excluded Work, as identified in Paragraph VIII.B. of the AOC. EPA shall oversee the Respondent's activities throughout the performance of the work.

The requirements of this SOW will be further detailed in other documents to be submitted by the Respondent for approval by the United States Environmental Protection Agency (EPA) as set forth in the AOC and this SOW. The definitions set forth in the AOC also shall apply to this SOW unless otherwise expressly provided herein.

EPA review or approval of a task or deliverable shall not be construed as a determination as to the adequacy of such task or deliverable or the work performed in accordance with any deliverable. A summary of the major deliverables that the Respondent shall submit for the work is attached.

II. BACKGROUND

Below is a description of the remedy for the central and eastern VOC contaminant areas. This section does not include a description of the work to be performed by Respondent under the Consent Order. The work to be performed by Respondent is addressed in Section III of this SOW.

A. Remedy Components for the Central and Eastern VOC Contaminant Areas

The major components of the selected remedy for the eastern and central contaminant areas to be implemented include:

- Monitored natural attenuation (MNA) of the central and eastern Upper Alluvial Unit (UAU) areas of VOC-contaminated groundwater and the Middle Alluvial Unit (MAU) areas of VOC-contaminated groundwater to attain aquifer cleanup standards within

those areas, and to prevent migration of groundwater contaminated above the aquifer cleanup standards to and beyond the compliance boundaries established in the ROD.

- The compliance boundary for the central and eastern UAU areas of contamination is located approximately 2,000 feet south of Broadway Road, bounded by Price Road to the east and Dorsey Lane to the west. Sentinel wells will be located in the UAU up gradient of the UAU compliance boundary in an area bounded by Broadway Road to the north, approximately 1,000 feet south of Broadway Road to the south, approximately 1,000 feet east of Price Road to the east, and Dorsey Lane to the west. The location of the compliance boundaries and areas for sentinel wells are shown in Figure 10 in Section 10.0 of the ROD Attachment A of this SOW. The sentinel wells will be monitored at least quarterly for the hazardous substances for which aquifer cleanup standards are established (see Section 12.0 of the ROD), and for other substances as appropriate.

The compliance boundary for the MAU areas of contamination is located approximately 2,000 feet east of the current extent of VOC contamination and is bounded by Rio Salado Parkway to the north and Apache Boulevard to the south. Sentinel wells will be located approximately 1,000 feet up gradient of the MAU compliance boundary, as shown in Figure 10 of Section 10.0 of the ROD and Attachment A of this SOW. The sentinel wells will be monitored at least quarterly for the substances for which aquifer cleanup standards are established and for other substances as appropriate.

- Continued monitoring of groundwater to verify the effectiveness of the MNA remedy and to ensure that aquifer cleanup goals are met throughout the central and eastern areas of VOC contamination.
- Establishment of institutional controls to protect the public from exposure to contaminated groundwater exceeding aquifer cleanup levels until cleanup levels are met. Institutional controls will include various Arizona well siting, permitting, and construction restrictions, and notices distributed by the Arizona Department of Water Resources, Arizona Department of Health Services, or EPA concerning risks from exposure to contaminated groundwater. Additional institutional controls to prevent interference with EPA's remedial efforts also may be established.
- Sealing of Well SRP23E, 2.9N to eliminate this potential path of VOC contaminant migration from the UAU to the MAU. This well is located in an area of shallow contamination and represents a potential conduit for downward contaminant migration. Other monitoring wells that will not be included in the long-term monitoring network will be abandoned as appropriate.

B. Contingency Remedy for the Central and Eastern VOC Contaminant Areas

A contingency remedy of extraction and treatment of appropriate target volumes of contaminated groundwater in MNA areas may be triggered to satisfy the following two criteria: (1) attaining aquifer cleanup standards within a reasonable time frame of approximately 30 years, and (2) preventing migration of groundwater contaminated above the aquifer cleanup standards to and beyond the compliance boundaries. The appropriate "target volume" of contaminated groundwater to be extracted and treated will be determined to ensure that these two criteria are met. For the UAU or MAU, the contingency remedy will be triggered if either one of the following situations occurs:

If verification sampling at the sentinel wells confirms that data collected during quarterly sampling exceed the aquifer cleanup standards, and if the average contaminant concentration collected from the next two consecutive quarterly sampling rounds from this well exceeds the aquifer cleanup standards, then the contingency remedy will be activated. The contingency remedy may be implemented sooner, if needed.

EPA-approved flow and transport modeling will be conducted using data collected during each EPA 5-year review period. If the modeling evaluation indicates that the MNA remedy will not attain aquifer cleanup standards within a reasonable time frame of approximately 30 years from the start of remedial action, then the contingency remedy will be activated.

C. The Remedial Design

The remedial design conducted by the Respondent, as required by the AOC and this SOW, shall encompass: (1) designing a monitoring well system that is sufficient to meet, and to ensure that the remedy meets, the performance standards; (2) installing new wells in the central area in accordance with approved well installation plans and the AOC; (3) repairing and rehabilitating certain existing wells in the central and eastern contaminant areas; (4) performing quarterly groundwater monitoring for 15 months using existing and newly installed wells; (5) performing groundwater modeling utilizing the data collected during this 15 month period and existing data, in order to establish and evaluate an appropriate monitoring system which will be used to assess the progress of the natural attenuation remedy and to monitor and assess whether the criteria established in the ROD for implementing the contingency remedy of extraction and treatment are triggered.

III. WORK TO BE PERFORMED

This section outlines the tasks to be performed by the Respondent. The deliverables described below shall be subject to EPA review and approval in accordance with Section VIII of the AOC. Respondent is responsible for fulfilling additional data and analysis needs identified by EPA during the remedial design process consistent with the general scope and objectives of the ROD, and the AOC, including this SOW, subject to limitations established in the AOC and excluding the Excluded Work identified in Paragraph VIII.B. of the AOC. All work and activities performed pursuant to this SOW shall be in accordance with CERCLA and its associated regulations in the National Contingency Plan 40 C.F.R. 300. All work shall be in accordance with applicable, published EPA Superfund guidance, including but not limited to that guidance specified in the AOC and in the References section of this SOW.

Respondent shall become familiar with existing data, and acquire a conceptual understanding of RD/RA requirements for the central and eastern areas. Respondent should consult with and, if EPA requests, conduct a site visit with the EPA Project Coordinator during the project planning stage.

Respondent shall conduct the following work, and submit by the dates specified, the following deliverables:

A. Remedial Design Work Plan

A Remedial Design (RD) Work Plan which provides for the design of the remedy selected in the ROD shall be submitted for review and approval 90 days after the EPA approval of the qualified professional engineer or certified geologist according to Section VIII. A. of the AOC. The RD Work Plan shall provide for the design of the monitored natural attenuation groundwater remedy for the central and eastern areas of groundwater contamination set forth in the ROD for the achievement of the performance standards and other requirements set forth in the ROD, the AOC, and this SOW, except that the RD Work Plan need not address the Excluded Work, as identified in Paragraph VIII.B. of the AOC. The RD Work Plan shall provide for quarterly progress reports to EPA during activities performed by Respondent as required by the AOC and this SOW. The RD Work Plan shall include, at a minimum, the following:

- 1) Identification of Remedial Design Team which will be responsible performing RD work;
- 2) Description of roles and responsibilities of individuals identified as part of the RD Team;
- 3) Summary of the existing data including physical and chemical characteristics of the contaminants identified at the Site;
- 4) Description of the tasks to be performed pursuant to Sections III A-E of this SOW, the

information needed in order to perform each task, the information to be produced during and at the end of each task, and the work products/deliverables which will be submitted to EPA;

5) Remedial Design Groundwater Monitoring Plan for Central and Eastern Contaminant Areas:

Determine the appropriate placement of wells necessary for the remedy and design a monitoring program to collect 15 months (5 quarters) of sampling data in order to determine if the groundwater well placement and groundwater monitoring program design are sufficient for the MNA remedial action. The remedial design must establish a monitoring program in order to monitor and assess the progress of natural attenuation in the central and eastern contaminant areas and the factors necessary to determine whether the contingency remedy trigger criteria are exceeded. This plan shall include, at a minimum, the following:

- Rationale for inclusion in the design of new and existing UAU and MAU wells to be used to monitor or evaluate the MNA remedy, and the identification and location of UAU and MAU sentinel wells;
- Well installation plans, including diagrams, well drilling techniques, well development and aquifer test procedures for ensuring successful completion and development of monitoring wells for the installation of one or more UAU well and one or more MAU well in the central area;
- Identification of analytical parameters to be sampled for, frequency of sampling, and water level data collection;
- Plans for acquiring access to properties for installation of new wells in the central area and repair of existing wells, and for collection of data from new and existing wells;
- Schedule for conducting the RD groundwater monitoring well installation work.

6) Well Rehabilitation/Repair Plan:

Respondent shall prepare the Well Rehabilitation/Repair Plan as part of the remedial design. The Well Rehabilitation/Repair Plan shall be included in the RD Work Plan and shall contain, at a minimum, the following:

- Identification of wells in need of repair, and plans specifying repairs for each well, including identification of who will perform the work;
- Schedule for implementing the repair work.

7) Remedial Design Groundwater Modeling (including Modeling Plan):

The Respondent shall design the Remedial Design Groundwater Modeling for groundwater flow, fate and transport of the UAU and MAU. This model will be used to evaluate whether monitored natural attenuation will occur at the central and eastern contaminant areas at a rate

sufficient to meet aquifer cleanup standards within a reasonable time frame of 30 years and within the compliance boundaries set forth in the ROD for the UAU and MAU. This model shall be designed and modeling shall be conducted at least once during the RD and shall incorporate the data collected during the 15 months of monitor well sampling. The modeling will be conducted during the RD in order to evaluate the appropriateness of the design of the groundwater monitoring well field and to generate baseline modeling data for comparison with modeling outputs which will be generated during the remedial action phase. The Groundwater Modeling Plan shall be included in the RD Work Plan and should include at a minimum the following:

- Identification of model name and type, and a rationale for selection of that groundwater fate and transport model;
 - Description of model, model inputs, and sensitivity analysis;
 - Description of how modeling data will be used to evaluate if the monitored natural attenuation remedy will achieve ROD Performance Standards;
 - Delineation of the groundwater monitoring well field;
 - Schedule for conducting the RD groundwater modeling.
- 8) Respondent shall include a Project and Data Management Plan which addresses the requirements for project management systems, including tracking, sorting, and retrieving the data, along with an identification of the software to be used, minimum data requirements, data format, and provisions for backup data management. The data management plan shall address both data management and document control for all activities conducted during this RD and shall design procedures for both data management and document control for use during remedial design and the implementation of the remedial action. The plan must also include identification of methodologies that will be used to test compliance of MNA remedy with Performance Standards and ROD requirements.
- 9) Respondent shall include a detailed schedule for the submittal of draft and final RD deliverables, submittals, and Work to be Performed required by this SOW.
- 10) Respondent shall include a detailed description of the scope of the quarterly progress reports to EPA. The description of the quarterly reports shall specify that the quarterly reports, at a minimum, describe the actions which have been taken toward achieving compliance with the AOC, ROD and this SOW; include summary of all sampling and test results and all other data received or generated by Respondent during the previous reporting period; describe actions plans and work performed during previous progress period; provide a schedule of Work to be performed or events to occur during next reporting period; and describe any modifications to plans or work and any problems which occurred during period and how they were resolved

B. Remedial Design Sample and Analysis Plan

The Respondent shall submit a Remedial Design Sample and Analysis Plan (RD-SAP) 45 days after EPA approval of the RD Work Plan. It is expected that 15 months (5 quarters) of groundwater data will be collected in order to evaluate the effectiveness and ability of the monitoring well field in monitoring the occurrence of natural attenuation at the VOCs in the central and eastern contaminant areas and in monitoring whether the contingency remedy is triggered, and to complete the design. The RD-SAP shall include at a minimum the following:

- Field Sampling Plan (FSP) to document the objectives, rationales, and procedures for collecting and analyzing environmental samples, including field and laboratory methods. Five quarters of sampling analysis and water level data will be collected and evaluated from the EPA approved RD groundwater monitoring wells;
- Quality Assurance Project Plan (QAPP) to identify the quality assurance/quality control procedures for field work and sample analysis work and which also includes data validation procedures;
- Plans for sampling and disposal of investigation-derived wastes (IDW);
- Schedules for performing work according to RD-SAP.

C. Remedial Design Health and Safety Plan

The Respondent shall submit a Remedial Design (RD) Health and Safety Plan to EPA which conforms to the applicable Occupational Safety and Health Administration and EPA requirements including, but not limited to, 29 C.F.R. 1910.120, within 30 days after approval of the RD Work Plan. The RD Health and Safety Plan shall include at a minimum the following:

- Potential health and safety concerns and risks posed by potential exposure to contaminants and chemicals at the Site from both soils and groundwater;
- Description of monitoring and personal protective equipment, medical monitoring, and other activities to be taken to ensure health and safety protection, including provisions for site control.

D. Performance of Remedial Design Work According to EPA Approved RD Plans

Once the Plans specified in Section III A-C have been approved by EPA, the Respondent shall conduct the following RD work according to those EPA approved RD plans and schedules. This work shall include the following:

- 1) Obtain access for properties to install, repair, and/or sample wells which are part of the approved groundwater monitoring plan;
- 2) Install at least two (2) new monitoring wells in the central contaminant area; one well in the UAU and one well in the MAU;
- 3) Perform well rehabilitation and repair to facilitate the evaluation and completion of the remedial design in accordance with the Well Rehabilitation/Repair Plan of at least 10 UAU wells and 2 MAU wells in the central and eastern plumes;
- 4) Perform quarterly groundwater sampling and analysis, and, in addition, conduct monthly collection of water level data in accordance with the RD Groundwater Monitoring Plan and EPA approved RD-SAP. The wells will be sampled and analyzed for 5 quarters (15 months), and monthly water level data will be collected during this same time period in order to gather data to ensure that the number of wells and locations of the wells and the well-field design are appropriate for and monitoring the natural attenuation remedy and determining if the contingency remedy triggers are exceeded;
- 5) Perform groundwater fate and transport modeling at least once immediately following the 15 months of quarterly sampling in accordance with the RD Groundwater Modeling Plan. This modeling shall incorporate *validated* data collected by Respondent and by EPA during the 15 months of RD monitoring well sampling. This model will be used to evaluate whether monitored natural attenuation will occur at the central and eastern contaminant areas at a rate sufficient to meet aquifer cleanup standards within a reasonable time frame of 30 years and within the compliance boundaries set forth in the ROD for the UAU and MAU. The modeling will be conducted during the RD in order to evaluate the appropriateness of the well placement and the design of the groundwater monitoring well field and to generate baseline modeling data for comparison with modeling outputs which will be generated during the remedial action phase;
- 6) Provide Quarterly Progress Reports to EPA which shall, at a minimum, describe the actions which have been taken toward achieving compliance with the AOC, ROD and this SOW; include a summary of all sampling and test results and all other data received or generated by Respondent during the previous reporting period; describe actions, plans, and work performed during the previous progress period; provide a schedule of Work to be Performed and events to occur during the next reporting period; and include a description of any modifications to plans or work and any problems which occurred during period and how they were resolved.

E. Draft and Final Remedial Design Reports

The Respondent shall submit a Draft Remedial Design Report to EPA for comments not later than 6 months after the completion of the 15th month of monitoring well sample collection. The Final Remedial Design Report shall be submitted to EPA 60 days after Respondent has received EPA comments on the draft. The Draft and Final Remedial Design Reports should include, at a minimum, the following:

- Description of field activities performed during installation, explanation of any modifications from approved plans made during installation, and final diagrams and as-builts of wells newly installed and repaired during RD;
- Statement that wells have been constructed properly and that they are functioning as designed;
- Maps and tables with description of monitoring well network (i.e., names, screened intervals, locations, dates of well completion) for the central and eastern areas of UAU and MAU, including all areas within the compliance boundaries;
- Aquifer cross-sections, hydraulic conductivity, and gradient information gathered during RD;
- Groundwater fate and transport modeling outputs and other modeling information;
- Description of the actions which have been taken toward achieving compliance with the AOC, ROD and this SOW during the 15 months (5 quarters) of sampling and analysis, including a summary of all sampling and test results and all other data received or generated by Respondent during this period;
- Description and analysis of appropriateness of remedial design, including placement of existing wells and well field, for monitoring the natural attenuation remedy and determining if the contingency remedy is triggered, and recommendation of actions or plans to be taken in order to modify the design, including well placement, in order to meet the remedy Performance Standards;
- Description of well repair work performed.

REFERENCES

The following list, although not comprehensive, comprises many of the regulations and guidance documents that apply to the RD process. Respondent may review these guidance documents and shall use the information provided therein in performing the RD and preparing all deliverables under this SOW.

1. "National Oil and Hazardous Substances Pollution Contingency Plan, Final Rule," Federal Register, 40 C.F.R. Part 300, March 8, 1990.
2. "Superfund Remedial Design and Remedial Action Guidance," U.S. EPA, Office of Emergency and Remedial Response, June 1986, OSWER Directive No. 9355.O-4A.
3. "Interim Final Guidance on Oversight of Remedial Designs and Remedial Actions Performed by Potentially Responsible Parties," U.S. EPA, Office of Emergency and Remedial Response, February 14, 1990, OSWER Directive No. 9355.5-01.
4. "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interim Final," U.S. EPA, Office of Emergency and Remedial Response, October 1988, OSWER Directive No. 355.3-01.
5. "A Compendium of Superfund Field Operations Methods," Two Volumes, U.S. EPA, Office of Emergency and Remedial Response, EPA/540/P-87/001a, August 1987, OSWER Directive No. 9355.0-14.
6. "EPA NEIC Policies and Procedures Manual," EPA-330/9-78-001-R, May 1978, revised November 1984.
7. "Guidance for Data Quality Objectives (DQO) Process" September 1994 (EPA QA/G-4)
8. "USEPA Contract Laboratory Program Functional Guidelines for Organic Data Review" February 1994 (EPA-540/-94/012)
9. "USEPA Contract Laboratory Program Functional Guidelines for Inorganic Data Review" February 1994 (EPA-540/-94/013)
10. "EPA Requirements for Quality Assurance Project Plans for Environmental Data

Operations" May 1994 (EPA QA/R-5)

11. "Guidance for Quality Assurance Project Plans" February 1998 (EPA QA/G-5)
12. "Laboratory Documentation Requirements for Data Validation" (EPA Document Control Number 9QA-07-97)
13. "Interim Guidance on Compliance with Applicable or Relevant and Appropriate Requirements," U.S. EPA, Office of Emergency and Remedial Response, July 9, 1987, OSWER Directive No. 9234.0-05.
14. "CERCLA Compliance with Other Laws Manual," Two Volumes, U.S. EPA, Office of Emergency and Remedial Response, August 1988 (Draft), OSWER Directive No. 9234.1-01 and -02.
15. "Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites," U.S. EPA, Office of Emergency and Remedial Response, (Draft), OSWER Directive No. 9283.1-2.
16. "Health and Safety Requirements of Employees Employed in Field Activities," U.S. EPA, Office of Emergency and Remedial Response, July 12, 1981, EPA Order No. 1440.2.
17. "Standard Operating Safety Guides," U.S. EPA, Office of Emergency and Remedial Response, November 1984.
18. "Standards for General Industry," 29 C.F.R. Part 1910, Occupational Health and Safety Administration.
19. "NIOSH Manual of Analytical Methods," 2d edition. Volumes I - VII, or the 3rd edition, Volumes I and II, National Institute of Occupational Safety and Health.
20. "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities," National Institute of Occupational Safety and Health/Occupational Health and Safety Administration/United States Coast Guard/Environmental Protection Agency, October 1985.
21. "Methods for Evaluating the Attainment of Cleanup Standards: Volume 2: Groundwater", U.S. EPA, Office for Policy Planning and Evaluation, EPA 230-R-92-014, July 1992.
22. "Use of Monitored Natural Attenuation at Superfund, RCRA Corrective action and

Underground and Underground Storage Tank Sites (OSWER Directive 9200.4-18
Interim Final as published in the Federal Register December 8, 1997.

SUMMARY OF THE MAJOR DELIVERABLES FOR THE
REMEDIAL DESIGN AT
INDIAN BEND WASH SUPERFUND SITE, SOUTH AREA

DELIVERABLE	EPA ROLE	DELIVERY DATE
Draft RD Work Plan (3) Final RD Work Plan	Review and Approval	Draft: 90 days after EPA approval of qualified professional engineer or geologist Final: 30 days after receipt of EPA comments on draft
Draft GW Sample and Analysis Plan (4) Final GW Sample and Analysis Plan (4)	Review and Approval	Draft: 45 days after EPA approval of RD Work Plan Final: 15 days after receipt of EPA comments on draft
Draft RD Health and Safety Plan (2) Final RD Health and Safety Plan (2)	Review	Draft: 30 days after EPA approval of RD Work Plan Final: 15 days after receipt of EPA comments on draft
Draft Remedial Design Report (3) Final Remedial Design Report (3)	Review and Approval	Draft: 6 months after completion of the 15th month (5th quarter) of monitoring well sample collection Final: 60 days after receipt of EPA comments on draft

NOTE: The number in parenthesis indicates the number of copies to be submitted to EPA by Respondent unless otherwise approved by EPA. One copy shall be unbound, the remainder shall be bound.